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ABSTRACT

This report, prepared by the Academic Games program of the Center, investigates the effects of the game Democracy on the political attitudes of junior high school students through two studies. The game focuses on the process of log-rolling, which the players, assuming the role of congressmen, quickly discover to be the most effective way to satisfy their simulated constituencies. Both studies were designed to test the same four hypotheses: 1) playing Democracy will cause students to be less disapproving of congressional log-rolling; 2) playing the game will increase students' feelings of political efficacy; 3) playing Democracy will increase the students' interest in politics and the legislative process; and, 4) the previously mentioned changes in attitude will be positively correlated with understanding of the game. The subjects were 8th and 9th grade students from neighboring schools near Baltimore. Measurement instruments were the same for the two studies. The results of both studies clearly support the first hypothesis. The results for the second hypothesis were not so clear--in both studies the differences are in the projected direction, but in one study they are not statistically significant. The third hypothesis is not supported. And finally, attitude change was not positively correlated with understanding of the game. (Author/JLB)

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Center for Social Organization of Schools

Report No. 114

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Effects of a Legislative Simulation Game on the Political Attitudes of Junior High School Students

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EFFECTS OF A LEGISLATIVE SIMULATION GAME ON THE POLITICAL ATTITUDES OF JUNIOR HIGH SCHOOL STUDENTS

Grant No. OEG-2-7-061610-0207

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Samuel A. Livingston

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INTRODUCTORY STATEMENT

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through five programs to achieve its objectives. The Academic Games program has developed simulation games for use in the classroom, and is studying the processes through which games teach and evaluating the effects of games on student learning. The Social Accounts program is examining how a student's education affects his actual occupational attainment, and how education results in different vocational outcomes for blacks and whites. The Talents and Competencies program is studying the effects of educational experience on a wide range of human talents, competencies and personal dispositions, in order to formulate--and research--important educational goals other than traditional academic achievement. The School Organization program is currently concerned with the effect of student participation in social and educational decision making, the structure of competition and cooperation, formal reward systems, use of student-related information in school systems, and effects of school quality. The Careers and Curricula program bases its work upon a theory of career development. It has develcped a self-administered vocational guidance device to promote vocational development and to foster satisfying curricular decisions for high school, college, and adult populations.

This report, prepared by the Academic Games program, investigates the effects of the simulation game Democracy on the political attitudes of junior high school students.

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ABSTRACT

Two studies were conducted to investigate the effects of the Democracy game on the political attitudes of junior high school students. The game produced marked increases in the students' acceptance of the practice of "log-rolling" by congressmen. In one of the studies it also increased the students' feelings of political efficacy. The game did not increase the students' interest in politics and the legislative process.

INTRODUCTION

When a social studies teacher chooses a reading selection or a film to use in his classes, he is generally concerned about its effects on the attitudes of his students. Will the students become more interested in the situation portrayed in the reading or film? Will they feel more sympathetic (or less sympathetic) toward persons actually in that situation? How will the reading or film affect the students' views of their own roles in society?

These concerns are as important in the selection of a simulation game for classroom use as they are in the selection of a reading or film. The purpose of the two studies reported here was to determine the effects of the simulation game Democracy (Coleman, 1969) on junior high school students who play it in class. In the game the player takes the role of a congressman whose re-election depends on the extent to which his constituents are satisfied with Congress' actions. The game focuses on the process of "log-rolling" (voting agreements between congressmen), which the players quickly discover to be the most effective way to satisfy their simulated constituencies.

Both studies were designed to test the same four hypotheses:

1. Playing Democracy will cause students to be less disapproving of congressional "log-rolling."
2. Playing Democracy will increase the students' feelings of political efficacy--the belief that they can understand and influence the government's actions.
3. Playing Democracy will increase the students' interest in politics and the legislative process.

4. All the previously mentioned changes in attitude will be positively associated with understanding of the game; students who best understand the game will be most likely to show attitude change in the predicted direction.

The first hypothesis is suggested by some previous research findings. Cherryholmes (1963) found that the Inter-Nation Simulation (Guetzkow and Cherryholmes, 1966), in which the players take the roles of national decision-makers, caused college students' attitudes toward foreign policy to shift away from a "moral-idealist" position and toward a "practical-realist" position. In the area of legislative politics, disapproval of "log-rolling" could be considered a "moral-idealist" position. Livingston (1970a) found that students who played the simulation game Ghetto (Toll, 1969), in which the player takes the role of a poor person, expressed more positive attitudes toward the poor after playing than before. Since in Democracy the player takes the role of a congressman who must engage in "log-rolling" in order to satisfy his constituents, the game might be expected to make him less inclined to disapprove of real congressmen who do the same thing.

The second hypothesis was investigated by Boocock (1966), who found that the Democracy game did increase students' feelings of political efficacy. However, the subjects for both of these studies were specially selected students in a situation which was not an ordinary school setting. Boocock's subjects were delegates to a national convention of 4-H clubs; Cohen's subjects were participants in a special summer school program for junior high school students who were "not interested in or not benefiting from the traditional classroom approach." The subjects in the

present studies were unselected junior high school students who played the game in their regular social studies classes.

The third hypothesis is one that has been investigated with other simulations and simulation games. The results show no consistent pattern. Clarke (1970) and Robinson et al. (1966) found evidence of increased student interest in the subject of the simulation; Livingston (1970a,b) found none.

The fourth hypothesis is not based on previous research. It arises from this author's own speculation as to the ways in which simulation games produce attitude change. When a student plays a simulation game, he experiences, in simulated form, some of the pressures and incentives that affect persons in the real situation. Consequently, he often finds himself making the same decisions as do the persons in the real situation. But for this experience to change his attitudes toward persons in the real situation, he must be aware of the pressures and incentives that motivated his decision, and he must also understand the analogy between the game and the real situation.

METHOD

The subjects for Study 1 were students in two ninth grade social studies classes at a high school in a small town near Baltimore. The study was conducted in March, near the beginning of a one-semester course in politics and government. The students were tested both before and after playing the Democracy game. All activities took place during regularly scheduled classes and were administered by the regular social studies teacher. No attempt was made to test students who were absent from the testing sessions. Thirteen students were present for only one of the testing sessions; the incomplete data from these students was not used in the data analysis.

The subjects for Study 2 were eighth graders at a junior high school in another small town near Baltimore. Seven classes participated in the study. The students were divided randomly within classrooms into two groups. One group then spent two class periods playing Democracy, while the other group played another simulation game which was not about politics or the legislative process. The group that played Democracy will be referred to here as the experimental group; the other, as the control group. The game which the control group played was Trade and Develop (Livingston, 1969), a game designed to teach principles of economic geography.[1]

[1]Another experiment, in which Trade and Develop was the experimental treatment, was conducted at the same time as this one. Thus each game served as a control treatment for the other.

The measuring instruments were the same for the two studies. Acceptance of congressional "log-rolling" was measured by three questions based on a hypothetical situation:

> Suppose two groups of congressmen make an agreement: "You vote for our bill and we'll vote for your bill."
>
> 1. Do you think this is unfair?
> 2. Do you think this is undemocratic?
> 3. Do you think this is dishonest?

The student received one point for each "no" answer.

Political efficacy was measured by the following three agree-or-disagree items.

> 1. The average person can't do much about politics and government.
> 2. Sometimes politics and government seem so complicated that a person like me can't really understand what's going on.
> 3. Sending letters to congressmen is a waste of time.

The student received one point for each "disagree" response.

Interest in politics and the legislative process was measured by a check list of book titles, accompanied by the instruction:

> Suppose you had to read a section from one of the following books: which would you choose? Place a check-mark beside each of your first <u>three</u> choices.

The list included four titles on national politics and four on economics, in the following order:

The Rich Nations and the Poor Nations

People and Power in Political Washington

The Congressman: His Work as He Sees It

Man, Land, and Food

Understanding Economic Growth

Congress Makes a Law

Politics, Parties, and Pressure Groups

World Trade

The student received one point for each political title he checked.

Understanding of the Democracy game was measured by a test consisting of seven multiple-choice items. (A copy of this test appears in the Appendix.)

RESULTS

The result of both studies clearly support the first of the four hypotheses: playing the game results in greater acceptance of the practice of "log-rolling." Figure 1 shows the means and 95% confidence intervals for this variable; Table 1 presents the numerical values on which Figure 1 is based. Table 1 also presents the t-ratios, the individual item means, and the values of coefficient alpha, a measure of the internal consistency of the scores (i.e., the tendency of the students to respond in the same way to all three items).

The results for political efficacy, presented in Figure 2 and Table 2, are not as clear. In both studies the differences are in the predicted direction, not only for the entire scale, but also for each of the three individual items. However, in Study 2 the difference between groups is not statistically significant, even with more than 100 subjects in each group.

The results for interest in politics, presented in Figure 3 and Table 3, do not support the third hypothesis. Although the differences between group means are in the expected direction, none of the differences is statistically significant. (In Study 2 the small difference represents the combined effect of two games, since the control group played an economics game and the checklist used to measure interest in politics used economics titles as alternative choices.)

Finally, the correlations between the three attitude variables and understanding of the game do not support the hypothesis that attitude change is positively associated with understanding of the game. Table 4 presents the correlations; none of them is significantly different from zero. The variable labeled "change (residual)" represents the difference between a student's post-test score and the post-test score that would be expected for him on the basis of his pre-test score. The small size of these correlations and the absence of any clear pattern may be due to the low internal consistency of the scores on the test used to measure understanding of the game; in both studies the value of alpha for this test was less than zero.

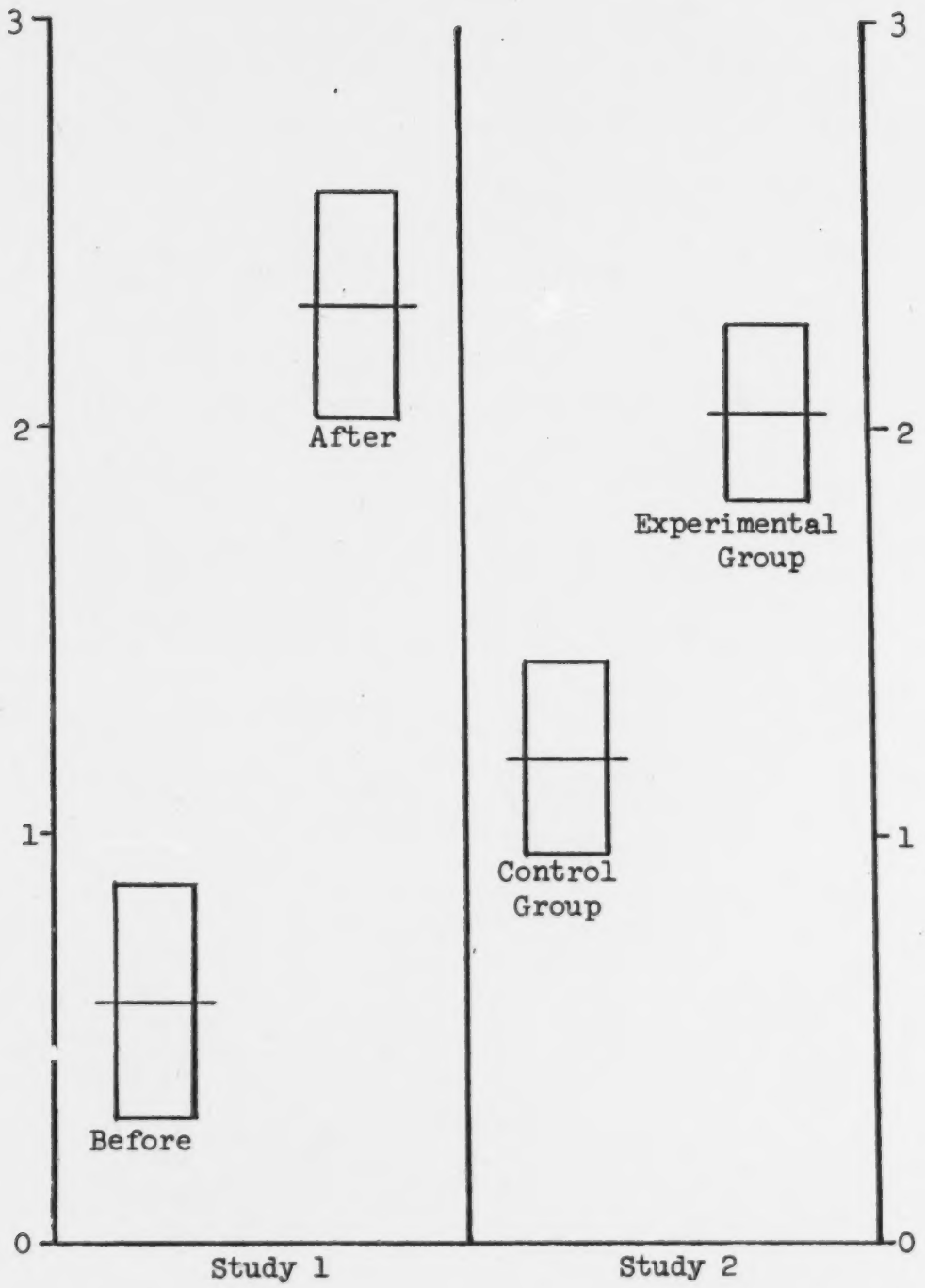

Figure 1. Acceptance of congressional "log-rolling": means and 95% confidence intervals.

Table 1. Acceptance of congressional "log-rolling."

	Study 1		Study 2	
Item means:	Before	After	Control Group	Experimental Group
Item 1	.23	.81	.46	.76
Item 2	.15	.69	.33	.58
Item 3	.21	.81	.39	.69
Mean	.58	2.31	1.18	2.03
S.D.	.98	.94	1.20	1.10
n	48	48	108	103
alpha	.77	.62	.70	.71
t	9.57		5.28	
df	47		209	
p	.001		< .001	

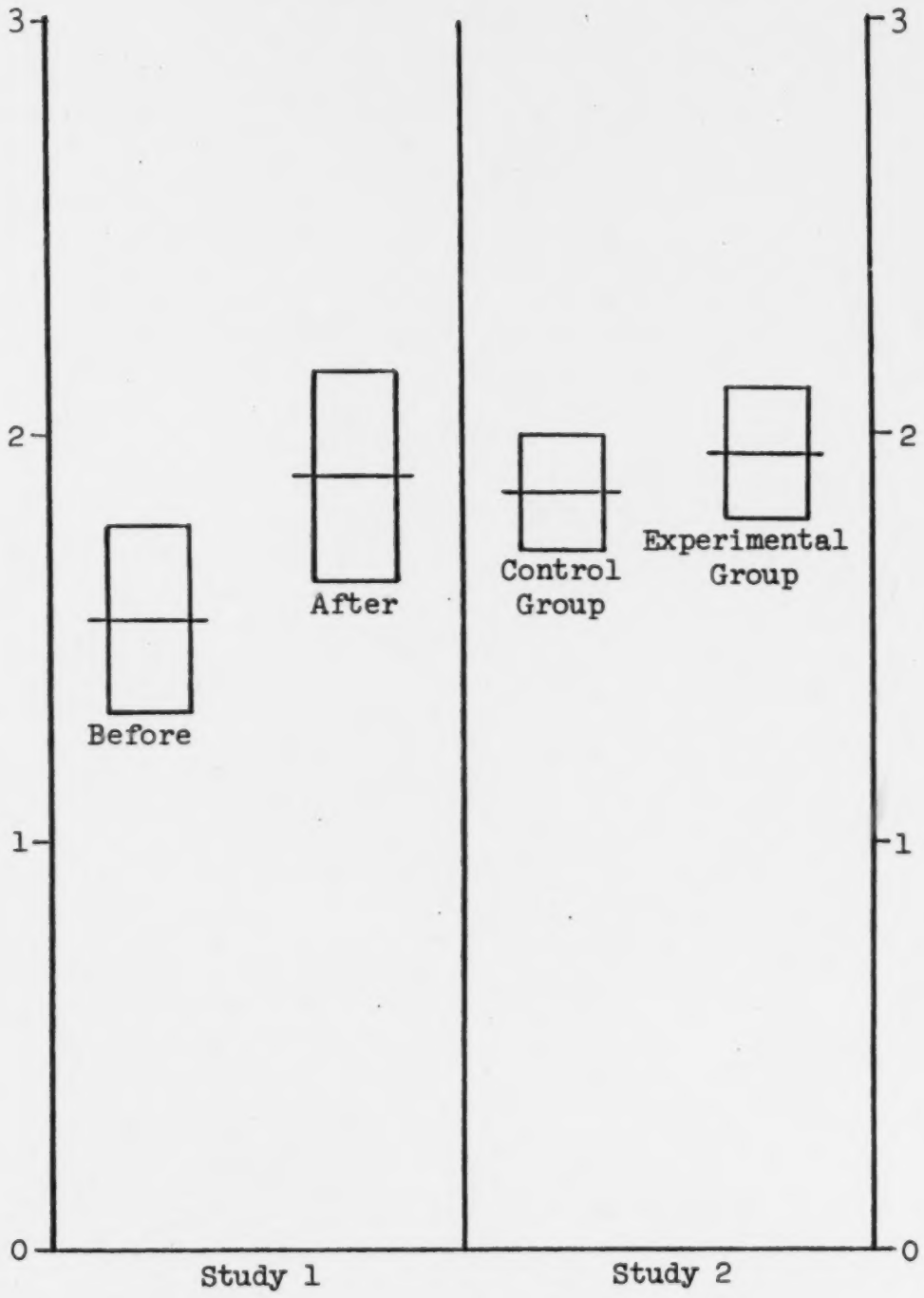

Figure 2. Political efficacy: means and 95% confidence intervals.

Table 2. Political efficacy.

	Study 1		Study 2	
	Before	After	Control Group	Experimental Group
Item means:				
Item 1	.62	.71	.75	.78
Item 2	.18	.35	.29	.32
Item 3	.73	.83	.82	.85
Mean	1.54	1.90	1.86	1.95
S.D.	.79	.88	.80	.80
n	48	48	108	103
alpha	.25	.39	.24	.31
t	2.83		1.13	
df	47		209	
p	< .01		N.S.	

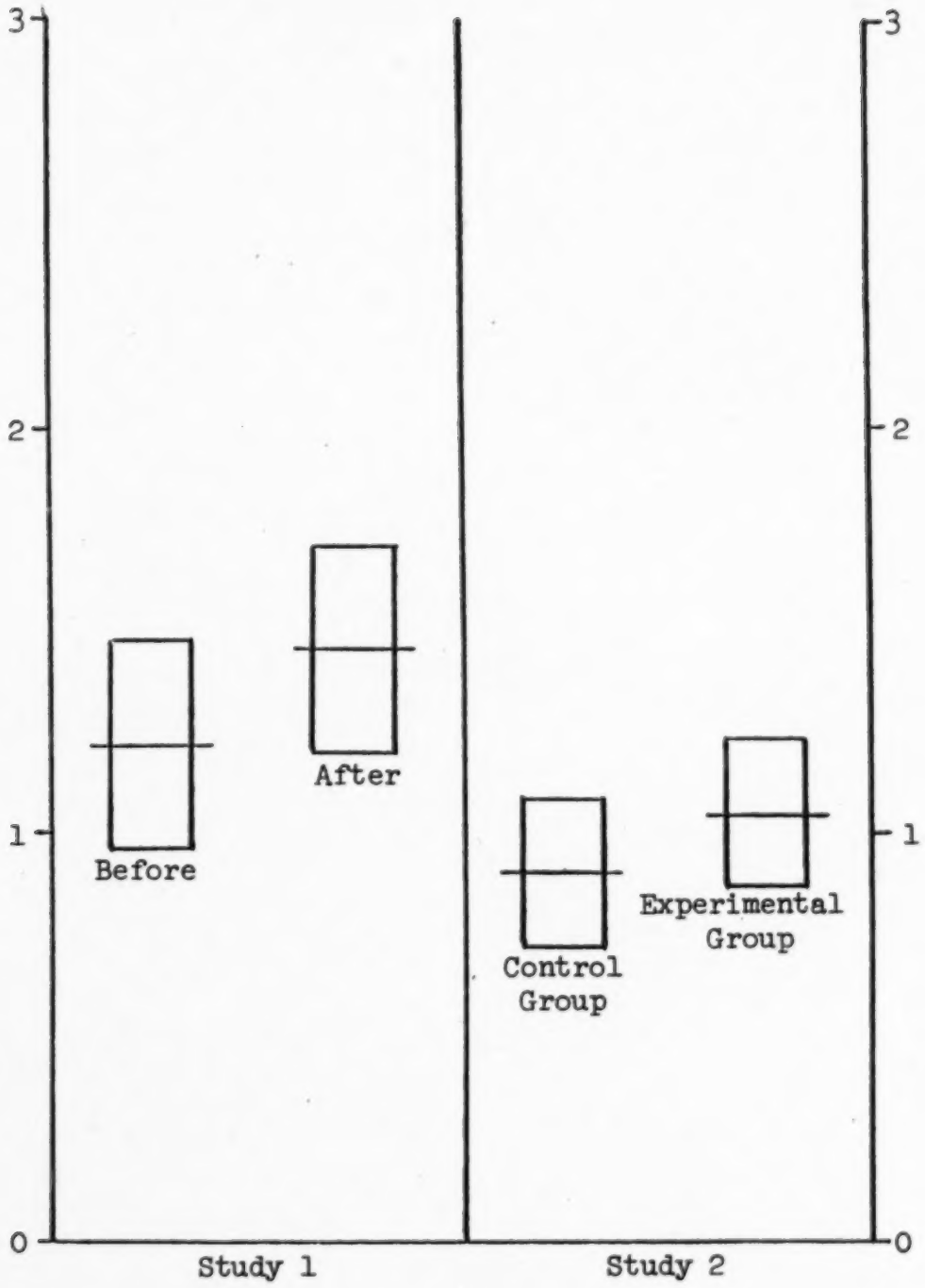

Figure 3. Interest in politics and the legislative process: means and 95% confidence intervals.

Table 3. Interest in politics and the legislative process.

	Study 1		Study 2	
	Before	After	Control Group	Experimental Group
Mean	1.22	1.46	.89	1.05
S.D.	.89	.88	.96	.97
n	46	46	104	100
t	.68		1.14	
df	45		202	
p	N.S.		N.S.	

Table 4. Correlations of attitude variables with understanding of game.

	Study 1 (n = 48)	Study 2 Experimental Group (n = 103)
Correlation of game understanding with:		
Acceptance of log-rolling		
Before	.06	
After	.11	.00
Change (residual)	.10	
Political efficacy		
Before	.30	
After	.34	-.01
Change (residual)	.22	
Interest in politics		
Before	.36	
After	.05	-.07
Change (residual)	-.19	

DISCUSSION

The two studies reported here represented an attempt to investigate four specific hypotheses about the effects of the Democracy game. The results clearly support the first of these hypotheses: playing the Democracy game does increase students' tolerance of "log-rolling" by congressmen. Taken by itself, this finding is important to teachers who are contemplating the use of the Democracy game in their classes. In the context of similar findings with other games, this finding provides additional support for the generalization that a simulation game can be expected to increase the player's level of tolerance, approval, or empathy for the real-life person whose role the player takes in the game.

The results of these studies are somewhat ambiguous with respect to the second hypothesis--that the game would increase students' feelings of political efficacy. Study 1 showed a statistically significant effect; Study 2 did not.

The third hypothesis--that the game would increase students' interest in politics and the legislative process--was not supported by either of the two studies. However, the validity of the measurement technique used may be open to question. A measure based on students' actual behavior might have shown the game to have an effect.

The fourth hypothesis--that attitude change would be positively associated with understanding of the game--could not be adequately tested in these studies because of the low internal consistency of the scores on the test which measured understanding of the game.

REFERENCES

Boocock, Sarane S. "An experimental study of the learning effects of two games with simulated environments." American Behavioral Scientist, 1966, 10(2): 8-17.

Cherryholmes, Cleo H. Developments in Simulation of International Relations for High School Teaching. Unpublished master's thesis, Emporia: Kansas State Teachers College, 1963.

Clarke, Wentworth. "A research note on simulation in the social studies." Simulation and Games, 1970, 1 (2); 203-210.

Cohen, Karen. "The effects of two simulation games on the opinions and attitudes of selected sixth, seventh, and eighth grade students." Johns Hopkins University, Center for Social Organization of Schools, Report No. 42, May, 1969.

Coleman, James S. Democracy (simulation game). New York: Western Publishing Co., 1969.

Guetzkow, Harold, and Cherryholmes, Cleo H. Inter-Nation Simulation Kit (simulation game). Chicago: Science Research Associates, 1965.

Livingston, Samuel A. Trade and Develop, a Game of Economic Geography (simulation game). Baltimore: Academic Games Associates, 1969.

Livingston, Samuel A. "Simulation games and attitude change: attitudes toward the poor." Johns Hopkins University, Center for Social Organization of Schools, Report No. 63, April, 1970.(a)

Livingston, Samuel A. "Simulation games as advance organizers in the learning of social science materials." Johns Hopkins University, Center for Social Organization of Schools, Report No. 64, April, 1970.(b)

Robinson, James A., et al. "Teaching with Inter-Nation Simulation and case studies." American Political Science Review, 1966, 60: 53-66.

Toll, Dove. Ghetto (simulation game). New York: Western Publishing Co., 1969.

APPENDIX

The following test was used to measure understanding of the Democracy game.

These questions are all about the Democracy game. Write the letter of the best answer.

(C)1. The Democracy game is based on the idea that people vote for or against their congressman according to
A) what he says about the issues
B) the way he votes in Congress
C) what congress does
D) what his party stands for

In the Democracy game, suppose you had cards which showed the following totals:

National park	200 against
Aid to education	20 against
Defense appropriation	20 for
All other issues	no cards

(A)2. If another player offers to vote against the national park if you will vote for aid to education, what should you do (if you want to get re-elected)?
A) make the agreement
B) turn him down
C) it doesn't matter which you do

(A)3. If the rules were changed so that each issue had to have a two-thirds majority in order to pass, would this help you or hurt you?
A) it would help
B) it would hurt
C) it wouldn't make any difference

(B)4. If the rules were changed so that there were no bargaining periods, would this help you or hurt you?
A) it would help
B) it would hurt
C) it wouldn't make any difference

(D)5. The "bargaining periods" in the game represent the times when congressmen are
A) in their home districts
B) on the floor of Congress
C) in committee hearings
D) none of these

(D)6. The "speeches" in the game represent

A) actual speeches on the floor of Congress
B) informal conversation between congressmen
C) things congressmen know about other congressmen's districts
D) all of these

(A)7. The "roll call" votes in the game represent
A) actual roll call votes in Congress
B) congressmen's interviews with reporters
C) congressmen's letters to voters
D) all of these